

08-27-01

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PTO/SB/05 (2/98)

Approved for use through 09/30/2000. OMB 0651-0032

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Please type a plus sign (+) inside this box → ☐

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UTILITY  
PATENT APPLICATION  
TRANSMITTAL

Attorney Docket No. 4015-1600

First Inventor or Application Identifier

Paul W. Dent

Title

COMMUNICATION SYSTEM EMPLOYING CHANNEL  
ESTIMATION LOOP-BACK SIGNALS

(Only for new nonprovisional applications under 37 CFR § 1.53(b))

Express Mail Label No.

EL849688349US

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

1. ☒ \*Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☒ Specification [Total Pages 31]  
(preferred arrangement set forth below)
- Descriptive title to the Invention
  - Cross References to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to Microfiche Appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
3. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 4]
4. ☒ Oath or Declaration [Total Pages 3]
- a. ☒ Newly executed (original or copy)
  - b. ☐ Copy from a prior application (37 C.F.R. § 1.63(d))  
(for continuation/divisional with Box 17 completed)  
[Note Box 5 below]
  - i. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting  
inventor(s) named in the prior application,  
see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference (useable if Box 4b is checked)  
The entire disclosure of the prior application, from which a  
copy of the oath or declaration is supplied under Box 4b,  
is considered as being part of the disclosure of the  
accompanying application and is hereby incorporated by  
reference therein.

6. ☐ Microfiche Computer Program (Appendix)
7. ☐ Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)
- a. ☐ Computer Readable Copy
  - b. ☐ Paper Copy (identical to computer copy)
  - c. ☐ Statement verifying identity of above copies

## ACCOMPANYING APPLICATION PARTS

8. ☒ Assignment Papers (cover sheet & document(s))
9. ☐ 37 C.F.R. § 3.73(b) Statement ☒ Power of Attorney  
(when there is an assignee)
10. ☐ English Translation Document (if applicable)
11. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
14. ☐ \*Small Entity ☐ Statement filed in prior application,  
Statement(s) Status still proper and desired
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☒ Other: Express Mail Certification

\*NOTE FOR ITEMS 1 & 14: IN ORDER TO BE  
ENTITLED TO PAY SMALL ENTITY FEES, A SMALL  
ENTITY STATEMENT IS REQUIRED (37 C.F.R.  
§ 1.27), EXCEPT IF ONE FILED IN A PRIOR  
APPLICATION IS RELIED UPON (37 C.F.R. § 1.28).

17. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information below and in a preliminary statement:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No: \_\_\_\_\_ / \_\_\_\_\_  
Prior application information: Examiner: Group/Art Unit:

## 18. CORRESPONDENCE ADDRESS

☒ Customer Number or Bar Code Labelor ☐ Correspondence address below

(Insert Customer No. or attach bar code label here)

NAME

PATENT TRADEMARK OFFICE

ADDRESS

CITY

STATE

ZIP CODE

COUNTRY

TELEPHONE

FAX

Name (Print/Type)

Michael D. Murphy

Registration No. (Attorney/Agent)

44,958

Signature

Date

August 24, 2001

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

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**FEE TRANSMITTAL**

Patent fees are subject to annual revision on October 1

These are the fees effective December 29, 1999.

Small Entity payments must be supported by a small entity statement.  
otherwise large entity fees must be paid. See Forms PTO/SB/09-12.

See 37 C.F.R. §§ 1.27 and 1.28.

**TOTAL AMOUNT OF PAYMENT** (\$)**1,340.00**

Complete if Known

Application Number	TBA
Filing Date	TBA
First Named Inventor	Paul W. Dent
Examiner Name	TBA
Group Art Unit	TBA
Attorney Docket No.	4015-1600

**METHOD OF PAYMENT (check one)**

- 1.
- ☒
- The Commission is hereby authorized to charge indicated fees and credit any over payments to:

Deposit Account Number 18-1167Deposit Account Name Coats & Bennett, P.L.L.C.

- ☒
- Charge Any Additional Fee Required Under 37 CFR §§1.16 and 1.17
- ☐
- Charge the Issue Fee Set in 37 CFR §1.18 at the Mailing of the Notice of Allowance

- 2.
- ☒
- Payment Enclosed:
- ☒
- Check
- ☐
- Money Order
- ☐
- Other

**FEE CALCULATION****1. BASIC FILING FEE**

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
101	690	201	345	Utility filing fee	710.00
106	310	206	155	Design filing fee	
107	480	207	240	Plant filing fee	
108	760	208	380	Reissue filing fee	
114	150	214	75	Provisional filing fee	
<b>SUBTOTAL (1)</b>					<b>(\$)710.00</b>

**2. EXTRA CLAIM FEES**

Total Claims		Extra Claims		Fee from below		Fee Paid	
35	-20** = 15	X	18.00	=	270.00		
7	-3** = 4	X	80.00	=	320.00		
Multiple Dependent Claims				X		=	

\*\* or number previously paid, if greater; For Reissues, see below

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
103	18	203	9	Claims in excess of 20	
102	78	202	39	Independent claims in excess of 3	
104	260	204	130	Multiple dependent claim	
109	78	209	39	**Reissue independent claims over original patent	
110	18	210	9	**Reissue claims in excess of 20 and over original patent	
<b>SUBTOTAL (2)</b>					<b>(\$)590.00</b>

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examination action	
115	110	215	55	Extension for reply within first month	
116	380	216	190	Extension for reply within second month	
117	870	217	435	Extension for reply within third month	
118	1,360	218	680	Extension for reply within fourth month	
128	1,850	228	925	Extension for reply within fifth month	
119	300	219	150	Notice of Appeal	
120	300	220	150	Filing a brief in support of an appeal	
121	260	221	130	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,210	241	605	Petition to revive - unintentional	
142	1,210	242	605	Utility issue fee (or reissue)	
143	430	243	215	Design issue fee	
144	580	244	290	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Petitions related to provisional applications	
126	240	126	240	Submission of Information Disclosure Stmt.	
581	40	581	40	Recording each patent assignment per property (times number of properties)	40.00
146	760	246	380	Filing a submission after final rejection (37 CFR 1.129(a))	
149	760	249	380	For each additional invention to be examined (37 CFR 1.129(b))	
Other fee (specify) _____					
Other fee (specify) _____					
<b>*Reduced by Basic Filing Fee Paid</b>					
<b>SUBTOTAL (3)</b>					<b>(\$)40.00</b>

<b>SUBMITTED BY</b>				<b>Complete (if applicable)</b>	
Typed or Printed Name	Michael D. Murphy			Reg. Number	44,958
Signature	<i>Michael D. Murphy</i>	Date	August 24, 2001	Deposit Account User ID	18-1167

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Other fee (specify)					
Other fee (specify)					
<b>SUBTOTAL (3)</b> (\$)40.00					

\*Reduced by Basic Filing Fee Paid

**SUBMITTED BY**

Typed or Printed Name Michael D. Murphy

Signature *Michael D. Murphy*

Date August 24, 2001

**Complete (if applicable)**

Reg. Number 44,958

Deposit Account User ID 18-1167

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Paul W. Dent

Serial No. \_\_\_\_\_

Filed: \_\_\_\_\_

For: COMMUNICATION SYSTEM EMPLOYING  
CHANNEL ESTIMATION LOOP-BACK  
SIGNALS

Attorney's Docket No. 4015-1600

**Express Mail Certification**  
**Label No.EL849688349US**

Raleigh, North Carolina

August 24, 2001

Commissioner for Patents  
**BOX PATENT APPLICATION**  
Washington, D.C. 20231

Sir:

**EXPRESS MAIL CERTIFICATE LABEL NO. EL849688349US**

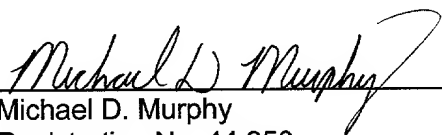
**DATE MAILED: August 24, 2001**

I hereby certify that the enclosed Utility Patent Application Transmittal Form, Fee Transmittal Form (2 copies), specification and claims, drawings (1 set of 4 sheets), Declaration and Power of Attorney, Assignment and Recordation Sheet, and our Check # 4768 in the amount of \$1,340.00, are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. §1.10 on the date indicated above and is addressed to Commissioner for Patents, BOX PATENT APPLICATION, Washington, D.C. 20231.

Respectfully submitted,

**COATS & BENNETT, P.L.L.C.**

By:

  
Michael D. Murphy  
Registration No. 44,958

Telephone: (919) 854-1844